



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/938,946	08/24/2001	Glen Seeds	32916US1	3804

116 7590 10/27/2004

PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER

TRUONG, CAMQUY

ART UNIT	PAPER NUMBER
----------	--------------

2127

DATE MAILED: 10/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/938,946

Applicant(s)

SEEDS, GLEN

Examiner

Camquy Truong

Art Unit

2127

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/22/2004.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-44 are presented for examination.
2. It is noted that although the present application does contain line numbers in the specification and claims, the line numbers in the claims do not correspond to the preferred format. The preferred format is to number each line of every claim, with each claim beginning with line 1. For ease of reference by both the examiner and Applicant all future correspondence should include the recommended line numbering.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.
4. Claims 1-11 and 25-29 are rejected under 35 U.S.C 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - A. The claim language in the following claims is not clearly understood:
 - i. As to claim 1, it is not clearly understood what an outstanding request is and how it relates to the different service type and the current service type.

ii. As to claim 25, it is not clearly indicated what a minimum number of server instance slots is.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gabriel (U.S. 6,560,330 B2) in further view of Taylor et al. (U.S. 6,310,949, B1).

6. As to claims 1, 12, 41 and 43 Gabriel teaches the invention substantially as claimed including: a method for dispatching requests to processing resources (col. 1, lines 11-13 and lines 19-23), the method comprising steps of:

Determining if a processing resource is idle (col. 2, lines 5-6 and lines 26-32; col. 4, lines 14-16; col. 5, line 62), the processing resource having a current service type to process requests that have the current service type (col. 2, line 61);

Determining if the processing resource is to be changed to a different service type to process requests having the different service type when the

processing resource is idle (col. 1, lines 62-64; col. 2, lines 25-32; col. 3, line 67-
col. 4, lines 3; col. 4, lines 19-22);

Changing the processing resource to the different service type when the
changing is determined (col. 4, lines 19-22; col. 5, lines 30-35); and

Dispatching an outstanding request having the different service type to
processing resource (col.2, lines 4-6; col. 4, lines 25-29).

7. Gabriel does not explicitly teach that the processing resource is to be switched. However, Taylor teaches the processing resource is to be switched (col. 2, lines 49-50). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to combine the teachings of Gabriel and Taylor because Taylor's processing resource is to be switched would improve the integrity of Gabriel et al 's system by switching the processing resources to different service type.

8. As to claims 30 and 34, it is rejected for the same reason as claims 1, 12, 41 and 43. In addition, Gabriel teaches a dispatching controller for dispatching an outstanding request having the different service type to the processing resource (col. 4, lines 23-30).

9. As to claims 25, 42 and 44, Gabriel teaches a method for dispatching queued requests to a predetermined member of server instances (col. 4, lines 5-7), the method comprising steps of:

Using a plurality of queues for queuing requests (col. 3, lines 45-46), each request having a service, a service type being defined by a primary request parameter and one or more secondary request parameter (col. 2, lines 25-26; col. 4, lines 11-13; col. 7, lines 60-63), and each queue being used for queuing requests having a same primary request parameter (col. 5, lines 23-28);

Reserving a minimum number of server instance slots for each queue, (col. 1, lines 26-28; col. 2, line 3) each server instance slot representing a potential server instance (col. 3, lines 64-67; col. 5, lines 25-28), each server instance having a current service type (col. 1, line 61; col. 2, lines 26-32);

Allocating one or more non-reserved server instance slots for each queue when the total number of server instances is larger than the sum of minimum numbers of reserved instance slots for queues being used (col. 1, lines 26-28; col. 2, line 3);

Reallocating one or more non-reserved server instance slots to a different queue when the non-reserved server instance slot is free (col. 1, lines 26-28; col. 2, line 3);

Dispatching a queue request from a queue to an idle server instance in a server instance slot allocated for the queue (col. 2, lines 4-6; col. 4, lines 25-29).

10. As to claims 2-3,13,15, 31 and 35-36, Gabriel teaches:

Determining if there is an outstanding request having the current service type (col. 2, lines 25-26; col. 14, lines 11-12); and

Identifying a service type of a currently outstanding request when there is no outstanding request having the current service type (col. 2, lines 25-26; col. 14, lines 11-12); and

Determining that the processing resource is to be change to the identified service type (col. 4, lines 15-22).

11. As to claims 4, 33 and 37-38, Gabriel teaches a service type is defined by a primary request parameter and one or more secondary request parameters, and the changing step change the processing resource to the different service type that has a same primary request parameter as the current service type (col. 3, line 64 – col.4, line 7).

12. As to claim 5, a step of queuing requests in a plurality of queues, each queue being user for queuing request having a same primary request parameter (col. 5, lines 23-28).

13. As to claim 6, it rejected for the same reason as claims 2-3,13 and 15.

14. As to claims 7 and 14, identifies a service type of a first queued request, which is the head of the queue (col. 4, lines 47-49).

15. As to claims 8, 11, 18 and 32, it is rejected for the same reason as claims 2-3, 13 and 15.

16. As to claims 9 and 16, the changing determining step determines if the server instance is to be changing by invoking a balancing algorithm using preparation costs for switching the processing resource to the identified service type (col. 4, lines 14-16).

17. As to claim 10, allowing dispatching of an outstanding request having the current service type from a queue prior to one or more outstanding request that have a different service type and arrived at the queue before the outstanding request having the current service type (col. 4, lines 23-31).

18. As to claim 11, terminating the processing resource if the processing resource is determined not to be switched and it is idle for longer than a predetermined time period (col. 4, lines 39-44).

19. As to claim 17, allowing dispatching of a queued request having the service type from a queue prior to one or more queued requests that

have a different service type and arrived at the queue before the queued request having the current service type (col. 4, lines 23-29).

20. As to claim 19, Gabriel teaches

Reserving a minimum number of server instance slots for each queue (col. 1, lines 26-28; col. 2, line 3), each server instance slot representing a potential server instance (col. 3, lines 64-67; col. 5, lines 25-28); and

Allocating one or more non-reserved server instance slots for each queue when the total number of server instances is larger than the sum of minimum numbers of reserved instance slots for queues being used (col. 1, lines 26-28; col. 2, line 3);

21. As to claims 20-21, 26, Gabriel teaches reallocating one or more non-reserved server instance slots to a different queue when the non-reserved server instance slot is free (col. 1, lines 26-28; col. 2, line 3);

22. As to claims 22-24, 27-29, Gabriel teaches primary request parameters of service types relate to priority, and the selecting step selects a higher queue having a higher priority primary request parameter if there are multiple queues having the fewest allocated non-reserved server instance slots (col. 2, lines 40-45).

23. As to claims 39-40, Gabriel teaches: an allocation controller for reserving a minimum number of server instance slots for each queue (col. 1, lines 26-28; col. 2, line 3), each server instance slot representing a potential server instance (col. 3, lines 64-67; col. 5, lines 25-28), allocating one or more non-reserved server instance slots for each queue when the total number of server instances is larger than the sum of minimum numbers of reserved instance slots for queues being used (col. 1, lines 26-28; col. 2, line 3), reallocating one or more non-reserved server instance slots to a different queue when the non-reserved server instance slot is free (col. 1, lines 26-28; col. 2, line 3);

Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camquy Truong whose telephone number is (571) 272-3773. The examiner can normally be reached on 8AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-3756.

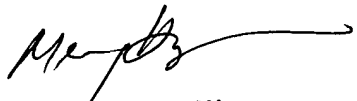
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIP. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

Application/Control Number: 09/938,946
Art Unit 2127

have questions on access to the Private PAIP system, contact the Electronic Business
Center (EBC) at 866-217-9197(toll-free).

Camquy Truong

October 23, 2004



MENG-AL T. AN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100